

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Ronald Breslow, Paul A. Marks, Richard A. Rifkind and Branko Jursic  
Reissue Application of: U.S. Patent No. 5,369,108  
Issue Date: November 29, 1994  
For: POTENT INDUCERS OF TERMINAL DIFFERENTIATION  
AND METHODS OF USE THEREOF

Date: 11/2/01 Express Mail Label No. EV 044389584 US

DECLARATION/POWER OF ATTORNEY FOR REISSUE  
PATENT APPLICATION UNDER 37 C.F.R. § 1.175  
BY JOINT ASSIGNEES

Box REISSUE  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

I, Michael J. Cleare, hereby declare that:

Sloan-Kettering Institute for Cancer Research together with The Trustees of Columbia University in the City of New York are joint Assignees of the entire interest in the patent identified below for which a reissue patent is sought:

Name of Patentees: Ronald Breslow, Paul A. Marks, Richard A. Rifkind  
and Branko Jursic

Patent Number: 5,369,108 Date Patent Issued: November 29, 1994

Title of Invention: "POTENT INDUCERS OF TERMINAL DIFFERENTIATION  
AND METHODS OF USE THEREOF"

1000441-110001

My residence, mailing address and citizenship are as stated below next to my name;

The name, residence, mailing address and citizenship of each Patentee are listed below;

I am authorized to act on behalf of The Trustees of Columbia University in the City of New York;

The title of my position is:

Executive Director

Science and Technology Ventures, Columbia University;

I believe said Patentees to be the original, first and joint inventors of the subject matter which is described and claimed in the above-identified patent, for which a reissue patent is sought, the specification of which is attached hereto including the Preliminary Amendment being filed concurrently;

I have reviewed and understand the contents of the attached reissue specification, including the claims, as amended in the attached Preliminary Amendment being filed concurrently;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information that is known to me to be material to patentability as defined in 37 C.F.R. § 1.56;

I believe U.S. Patent No. 5,369,108 to be wholly or partially inoperative or invalid by reason of the patentee claiming more or less than he had the right to claim in the patent. All errors corrected in this Reissue application arose without any deceptive intention on the part of the Applicants or their attorneys; and

1000441-110201

At least one error upon which reissue is based is described as follows:

Certain of the originally issued claims are believed to be too broad and as such are invalid in view of one or more references being submitted concurrently in accordance with 37 C.F.R. §§ 1.97 and 1.98.

To correct these errors, this reissue application is being filed wherein:

Claim 1 has been amended to recite that  $R_1$  and  $R_2$  of the structure set forth in the claim are the same and are a substituted or unsubstituted thiazoleamino group. Support for this amendment can be found, *inter alia*, in the originally issued claims and at Col. 7, lines 40-52 of the specification.

Claim 2 has been amended to be in independent form and to recite that  $R_2$  is a hydroxylamino group and is different from  $R_3-N-R_4$ . In addition, the definition of  $n$  has been amended to recite that  $n$  is an integer from 5 to about 8. Support for these amendments can be found, *inter alia*, in the originally issued claims, at Col. 2, line 65-Col. 3, line 6, at Col. 6, line 59-Col. 7, line 7 and in Table 1, as entries 2-5 of Column "CPD".

Claim 3 has been amended to further define the integer  $n$  as 6. Support for this amendment can be found in originally issued Claim 3 and throughout the specification.

Claims 5 and 7 have been amended to correct obvious typographical errors. Support for this amendment can be found, for example, in Table 1, entries 51-53 and in the art.

Claims 11, 12 and 13 have been amended to depend from Claim 2 rather than Claim 3. In addition, Claim 11 has been amended to designate the pyridine as a gamma pyridine,  $\gamma$ -pyridine, rather than a delta pyridine,  $\delta$ -pyridine. This is an obvious error, as  $\delta$ -pyridine cannot be a substituent. Support for this amendment can be found in the structures at Col. 17, lines 55-62 and Col. 18, lines 25-33.

1000441-10004

I hereby appoint the attorneys and/or agents associated with:

Hamilton, Brook, Smith & Reynolds, P.C.

530 Virginia Road

Concord, Massachusetts 01742-9133

**Customer No. 21005**

to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Send correspondence to: Customer No. 21005

Hamilton, Brook, Smith & Reynolds, P.C.

530 Virginia Road

Concord, Massachusetts 02421-4799

Direct telephone calls to: David E. Brook

Telephone: (978) 341-0036

Direct facsimiles to: David E. Brook

Facsimile: (978) 341-0136

Name, Residence, Mailing Address and Citizenship of each Patentee are as follows:

Patentee Ronald Breslow

Residence 275 Broad Avenue

Englewood, New Jersey 07631

Citizenship USA

Mailing Address Same as above.

Patentee Paul A. Marks

Residence 7 Rossiter Road

Washington, Connecticut 06793

Citizenship USA

Mailing Address Same as above.

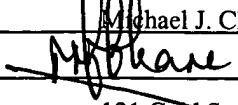
TOCOT "TTHOOT"

Patentee Richard A. Rifkind  
Residence 425 E. 58<sup>th</sup> Street, Apt. 48A  
New York, New York 10022  
Citizenship USA  
Mailing Address Same as above.

Patentee Branko Jursic  
Residence 946 Taft Place  
New Orleans, Louisiana 70119  
Citizenship USA  
Mailing Address Same as above.

I hereby declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

My Name, Residence, Mailing Address, and Citizenship are as follows:

Full name of Declarant Michael J. Cleare  
Declarant's Signature  Date 10/19/01  
Residence 121 Cold Springs Drive  
Kennett Square, Pennsylvania 19348  
Citizenship USA  
Mailing Address Same as above.

CERTIFICATE UNDER 37 C.F.R. § 3.73(b)Applicant(s): Ronald Breslow, Paul A. Marks, Richard A. Rifkind, and Branko JursicApplication No.: U.S. Patent No. 5,369,108 (07/771,760) Issued: November 29, 1994 ( Filed: October 4, 1991 )For: POTENT INDUCERS OF TERMINAL DIFFERENTIATION AND METHOD OF USE THEREOFThe Trustees of Columbia University in the City of New York, a Corporation,  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is

- A. ☐ the assignee of the entire right, title and interest in the patent application identified above.
- B. ☒ an assignee together with Sloan-Kettering Institute for Cancer Research of the entire right, title and interest in the patent identified above. A separate Certificate under 37 CFR § 3.73(b) is attached.

The right, title and interest of the above-named assignee in the patent identified above is established by virtue of:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel 5935, Frames 0910-0916, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are attached.☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 10/19/01Name: Michael J. Cleare, Ph.D.Title: Executive Director, Science and Technology VenturesSignature: 

100441-10301

Date: 11/2/01

EXPRESS MAIL LABEL NO. EV 044389584 US

Box REISSUE  
Assistant Commissioner for Patents  
Washington, D.C. 20231

**REISSUE APPLICATION: CONSENT OF ASSIGNEE  
(MULTIPLE ASSIGNEES)**

Docket Number:  
3254.1002-028

This is part of the application for a reissue patent based on the original patent identified below.

Name of Patentee(s):

Ronald Breslow, Paul A. Marks, Richard A. Rifkind, and Branko Jursic

Patent Number:  
5,369,108

Date Patent Issued:  
November 29, 1994

Title of Invention:

**POTENT INDUCERS OF TERMINAL DIFFERENTIATION AND METHODS OF USE THEREOF**

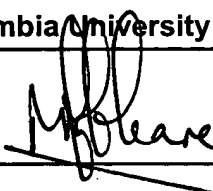
☒ Filed herein is a statement under 37 C.F.R. 3.73(b).

The joint assignees of the entire interest in said original patent are **Sloan-Kettering Institute for Cancer Research** and **The Trustees of Columbia University in the City of New York**. The assignees hereby consent to the accompanying application for reissue in accordance with 1.172(a).

Name of Assignee:

**The Trustees of Columbia University in the City of New York**

Signature:



Date:

10/19/01

Michael J. Cleare, Ph.D.  
Typed or printed name of person signing for assignee (if assigned).

Executive Director  
Title

100441-110201

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Ronald Breslow, Paul A. Marks, Richard A. Rifkind and Branko Jursic  
Reissue Application of: U.S. Patent No. 5,369,108  
Issue Date: November 29, 1994  
For: POTENT INDUCERS OF TERMINAL DIFFERENTIATION  
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Date: 11/2/01 Express Mail Label No. EV 044389584 US

DECLARATION/POWER OF ATTORNEY FOR REISSUE  
PATENT APPLICATION UNDER 37 C.F.R. § 1.175  
BY JOINT ASSIGNEES

Box REISSUE  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

I, James S. Quirk, hereby declare that:

Sloan-Kettering Institute for Cancer Research together with The Trustees of Columbia University in the City of New York are joint Assignees of the entire interest in the patent identified below for which a reissue patent is sought:

Name of Patentees: Ronald Breslow, Paul A. Marks, Richard A. Rifkind  
and Branko Jursic

Patent Number: 5,369,108 Date Patent Issued: November 29, 1994

Title of Invention: "POTENT INDUCERS OF TERMINAL DIFFERENTIATION  
AND METHODS OF USE THEREOF"

10044411001



My residence, mailing address and citizenship are as stated below next to my name;

The name, residence, mailing address and citizenship of each Patentee are listed below;

I am authorized to act on behalf of Sloan-Kettering Institute for Cancer Research;

The title of my position with Sloan-Kettering Institute for Cancer Research is:

Senior Vice President, Research Resources Management

Memorial Sloan-Kettering Cancer Center;

I believe said Patentees to be the original, first and joint inventors of the subject matter which is described and claimed in the above-identified patent, for which a reissue patent is sought, the specification of which is attached hereto including the Preliminary Amendment being filed concurrently;

I have reviewed and understand the contents of the attached reissue specification, including the claims, as amended in the attached Preliminary Amendment being filed concurrently;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information that is known to me to be material to patentability as defined in 37 C.F.R. § 1.56;

I believe U.S. Patent No. 5,369,108 to be wholly or partially inoperative or invalid by reason of the patentee claiming more or less than he had the right to claim in the patent. All errors corrected in the Reissue Application arose without any deceptive intention on the part of the Applicants or their attorneys; and

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3254.1002-028

At least one error upon which reissue is based is described as follows:

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1000441.110201

I hereby appoint the attorneys and/or agents associated with:

Hamilton, Brook, Smith & Reynolds, P.C.

530 Virginia Road

Concord, Massachusetts 01742-9133

**Customer No. 21005**

to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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Telephone: (978) 341-0036

Direct facsimiles to: David E. Brook

Facsimile: (978) 341-0136

Name, Residence, Mailing Address and Citizenship of each Patentee are as follows:

Patentee Ronald Breslow

Residence 275 Broad Avenue

Englewood, New Jersey 07631

Citizenship USA

Mailing Address Same as above.

Patentee Paul A. Marks

Residence 7 Rossiter Road

Washington, Connecticut 06793

Citizenship USA

Mailing Address Same as above.

Patentee Richard A. Rifkind  
Residence 425 E. 58<sup>th</sup> Street, Apt. 48A  
New York, New York 10022  
Citizenship USA  
Mailing Address Same as above.

Patentee Branko Jursic  
Residence 946 Taft Place  
New Orleans, Louisiana 70119  
Citizenship USA  
Mailing Address Same as above.

I hereby declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

My Name, Residence, Mailing Address, and Citizenship are as follows:

Full name of Declarant James S. Quirk  
Declarant's Signature *James S. Quirk* Date 10/19/01  
Residence 572 Eastbrook Road  
Ridgewood, New Jersey 07450  
Citizenship USA  
Mailing Address Same as above.

Date: 11/2/01

EXPRESS MAIL LABEL NO. EV 044389584 US

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Assistant Commissioner for Patents  
Washington, D.C. 20231

**REISSUE APPLICATION: CONSENT OF ASSIGNEE  
(MULTIPLE ASSIGNEES)**

Docket Number:  
3254.1002-028

This is part of the application for a reissue patent based on the original patent identified below.

Name of Patentee(s):

Ronald Breslow, Paul A. Marks, Richard A. Rifkind, and Branko Jursic

Patent Number:  
5,369,108

Date Patent Issued:  
November 29, 1994

Title of Invention:

**POTENT INDUCERS OF TERMINAL DIFFERENTIATION AND METHODS OF USE THEREOF**

☒ Filed herein is a statement under 37 C.F.R. 3.73(b).

The joint assignees of the entire interest in said original patent are **Sloan-Kettering Institute for Cancer Research** and **The Trustees of Columbia University in the City of New York**. The assignees hereby consent to the accompanying application for reissue in accordance with 1.172(a).

Name of Assignee:

**Sloan-Kettering Institute for Cancer Research**

Signature:

*James S. Quirk*

Date:

*10/19/01*

James S. Quirk  
Typed or printed name of person signing for assignee (if assigned).

Senior Vice President  
Title

100441-10001

CERTIFICATE UNDER 37 C.F.R. § 3.73(b)Applicant(s): Ronald Breslow, Paul A. Marks, Richard A. Rifkind, and Branko JursicPatent No.: U.S. Patent No. 5,369,108 (Application No.: 07/771,760) Issued: November 29, 1994 (Filed: October 4, 1991)For: POTENT INDUCERS OF TERMINAL DIFFERENTIATION AND METHOD OF USE THEREOFSloan-Kettering Institute for Cancer Research, a Corporation,  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is

- A. ☐ the assignee of the entire right, title and interest in the patent application identified above.
- B. ☒ an assignee together with The Trustees of Columbia University in the City of New York of the entire right, title and interest in the patent identified above. A separate Certificate under 37 CFR § 3.73(b) is attached.

The right, title and interest of the above-named assignee in the patent identified above is established by virtue of:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel 5935, Frames 0910-0916, or for which a copy thereof is attached.

OR

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Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
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☐ Additional documents in the chain of title are attached.☐ Copies of assignments or other documents in the chain of title are attached.

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I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: James S. Quirk 10/19/01Name: James S. QuirkTitle: Senior Vice President, Research Resources Management  
Memorial Sloan-Kettering Cancer CenterSignature: James S. Quirk

1004441-110201